

Cepeda Systems and Software Analysis, Inc.

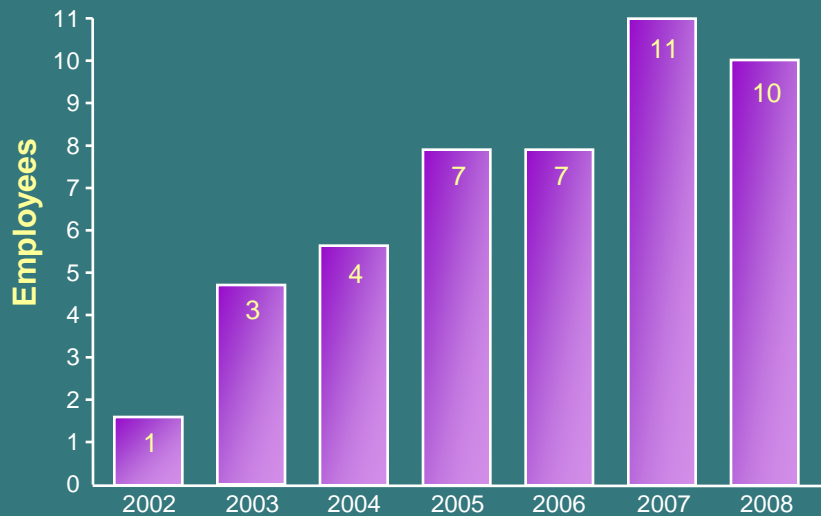
Corporate Capabilities Briefing

Doing what is right for our customers, partners, community, and employees!

- ◆ **Systems and Software Engineering Services**
- ◆ **Incorporated in October 2001**
- ◆ **Located in Madison, Alabama**
- ◆ **Woman-Owned Small Business**
- ◆ **Certified 8(a) Company by SBA in 2005**
- ◆ **SECRET Facility Clearance**

- ◆ **Software Engineering Institute (SEI) Partner for Capability Maturity Model Integrated (CMMI®) and Standard CMMI Appraisal Method for Process Improvement (SCAMPISM) Services**

Employee Growth (2002-2008)



Revenue Growth (2002-2008)



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Performance-Based Systems and Software Engineering

- ◆ **Engineering Services across the product life cycle to mitigate risk and increase probability of success**
- ◆ **Independent Verification & Validation (IV&V) activities from concept definition through fielding**
 - Improve customer's confidence that systems will work as expected when deployed
 - Ensure problems are found early in the development cycle
 - Increase quality and reliability of systems and ensure integrity is maintained
- ◆ **Analysis and evaluation of software-intensive systems**
- ◆ **Special engineering studies**
- ◆ **Requirements analysis and development**
- ◆ **Software development**
- ◆ **Program management**

Process Improvement Services

- ◆ **CMMI Process Improvement**
 - Coaching
 - Training
 - Implementation and deployment for small and large organizations
 - SCAMPI A, B, and C appraisals
 - SEI partner for CMMI and SCAMPI services
 - CMMI Tools
- ◆ **CMMI Special Projects**
 - Member of author team for CMMI v1.1, CMMI/SCAMPI v1.2 and SCAMPI v1.3 (only author of both CMMI 1.2 and SCAMPI 1.2)
 - Member of the CMMI for Services Advisory Board
 - SEI Visiting Scientist
 - SEI SCAMPI Observer
 - Lead Consultant for CMMI pilots sponsored by SEI and SED
- ◆ **Strategic and organizational planning**
- ◆ **Technology insertion and change management**
- ◆ **ISO 9001:2000**

CSSA's Systems and Software Engineering competency and Process Improvement expertise converge to provide a natural framework that supports the innovative and streamlined approaches needed to ensure mission success

NASA

- ◆ **NASA Marshall Space Flight Center**
- ◆ **Jacobs Engineering**

ARMY

- ◆ **Science Applications International Corporation (SAIC)**
- ◆ **U.S. Army PM Heavy Brigade Combat Team (HBCT)**
- ◆ **U. S. Army Aviation and Missile Research, Development, and Engineering Center (AMRDEC) Engineering Directorate (ED)**
- ◆ **U.S. Army AMRDEC Software Engineering Directorate (SED)**

COMMERCIAL

- | | |
|--|---------------------------------------|
| ◆ Analytical Services, Inc. (ASI) | ◆ Quadrus Corporation |
| ◆ Applied Data Trends (ADT) | ◆ Time Customer Services (TCS) |
| ◆ Morehouse College | ◆ Dynetics |
| ■ Enlightened, Inc. | ◆ IBM South America |
| ■ Vision Systems & Technology, Inc. | ◆ Columbus Technologies |

Through use of successfully applied engineering principles and industry standard best practices, CSSA has a proven track record in meeting organizational objectives that optimize safety, quality, cost, and schedule considerations, as evidenced by the 100% customer satisfaction rating we have obtained every year from every customer



◆ Key Tasks

- Provide Software Process Improvement support to the Flight and Ground Software Division (ES50)
- Software Engineering Process Group (SEPG) Lead
- Primary responsibility for four CMMI Process Areas – VER, VAL, RSKM, and PI
- Software Review Board (SRB) member
- Ares Engineering support
- Audit SA activities as related to PPQA

◆ Accomplishments

- Successful Ares US FSW ML3 SCAMPI A
- Ares SIL L2 Gap Analysis, Class C, Class B (SCAMPI A 9/22/09)
- Significant infrastructure improvements
 - Tools, website
 - Process definition refinement
- Input to Agency-wide requirements/standards
- Inputs to Constellation and Ares planning and technical documentation

◆ NASA Commendations

"The appraisal went very well (we have come a very long way, and ES51/Helen Housch and the ES51/SEPG were instrumental in this successful review). There were some areas for improvement that we will continue to work. Again, Helen played a significant role in working with the SIL personnel over the past few months, and preparing them with pre-interviews"

– Leann Thomas, ES50 Flight & Ground Software Division Chief

"You were recently nominated for a "Leadership at all Levels" Award within the Space Systems Department. You should consider it an honor to be nominated by your peers for the recognition of your demonstration of leadership within our department."

– Steven D. Pearson, Manager, Space Systems Department

"I want to take this opportunity to commend Helen Housch for the extra efforts she has devoted over the past several months to the Software Process Improvement Team. Her leadership was very instrumental for the CMMI Level 3 rating for the Flight and Ground Software Division. Helen goes the extra mile anytime a new task is discovered that is not covered by resources. She is very knowledgeable in process improvement and system engineering. She exemplifies a strong desire to work jobs to completion in a timely manner. Helen is the type of team player that is needed to accomplish our goals in this organization."

– Patricia A Benson, Chief, Software Systems Engineering Branch

Jacobs Outstanding Task Award Nomination

Submitted by Evelyn Thomas, Jacobs Team Lead

Customer Comments:

"Evelyn, I wanted to take this opportunity to express the outstanding work that the SPI Team has provided to ES51. Helen Housch, Carol Price, and David Statum have all been a very valuable asset to this organization providing excellent skills in software process improvements, software engineering, and software metrics. Because of their dedication and hardwork, ES51 is maintaining their CMMI Level 3 rating and ES53 is on the way to achieving CMMI Level 2 rating this year. This team, under the leadership of Helen Housch, is very active in the success of this Division."

– Pat Benson ES51, Branch Chief

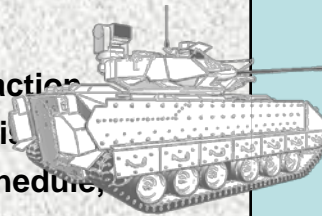


◆ Key Tasks for Bradley Fighting vehicles and the Fire Support vehicles

- Lead the Release and Fielding Process IPT
- Prime/Subcontractor Tracking and Oversight
- Program and Document Reviews
- Formal Qualification Test
- PCR Analysis and Metrics
- VVID Planning facilitation
- Schedule analysis
- Coordination across relevant stakeholder
- Responses to Taskers from DoD organizations
- Acquisition Process Improvement support

◆ Accomplishments

- Defect prevention
- Early detection of defects
- Higher level of end-user satisfaction
- Objective view on high impact issues
- Reduced development risk (schedule, performance)
- Improved communication and project visibility
- Enhanced operational correctness
- Better quality product



◆ Army Commendations

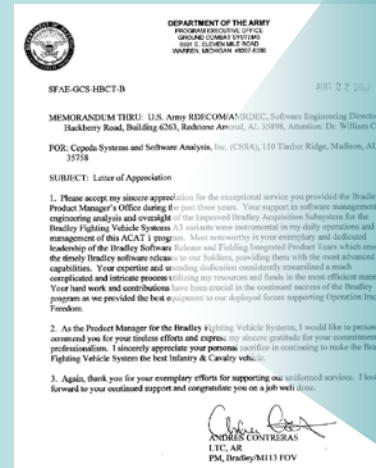
"Thanks for the hard work and getting software in the hands of our soldiers."

– 1st CAV user rep, Sam McDonald
for VVID 7.01.06-07 effort



"... Most noteworthy is your exemplary and dedicated leadership of the Bradley Software Release and Fielding Integrated Product Team which ensure the timely Bradley software releases to our Soldiers, providing them with the most advanced capabilities. Your expertise and unending dedication consistently streamlined a much complicated and intricate process utilizing my resources and funds in the most efficient manner. I would like to personally commend you for your tireless efforts and express my sincere gratitude for your commitment and professionalism."

– LTC Andres Contreras, AR
PM, Bradley/M113 FOV



◆ Key Tasks

- Provide software development support to the Translation (re-host) of FORTRAN hardware-in-the-loop simulation to C++
- Test and integration of hardware-in-the-loop simulation
- Validation of re-host results during standalone execution

◆ Accomplishments

- Identified existing previously unknown defects in legacy software
- Developed driver for initial testing and understanding of data and control flow of simulation
- Integrated simulation with legacy user interface for improved standalone operability and testing
- Developed tool to assist with analysis of simulation results and reduce verification time. Tool assists in identifying issues with re-host and reduces turnaround time for re-work



◆ Army Commendations

“Nick is doing great!!!!!!”

– Jay West, SED Project Lead, FMS/D





◆ Key Tasks

- **Supporting the Obsolescence Management/Product Availability Branch**
- **Establish the top level system requirements for the development and continued maintenance of the Advanced Technology of Obsolescence Management Services (ATOMS) tools**

◆ Accomplishments

- **Held sessions with relevant stakeholders to ensure their needs were taken into account**
- **Generated draft System Specification document**

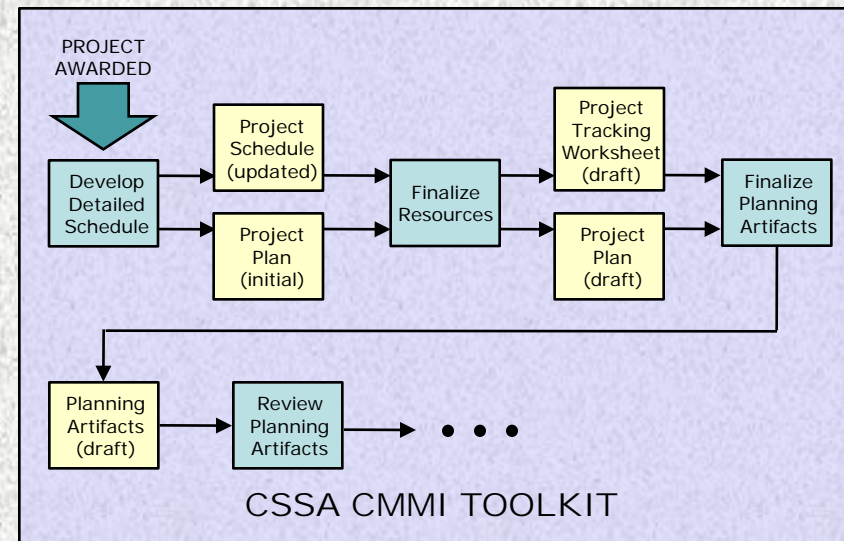
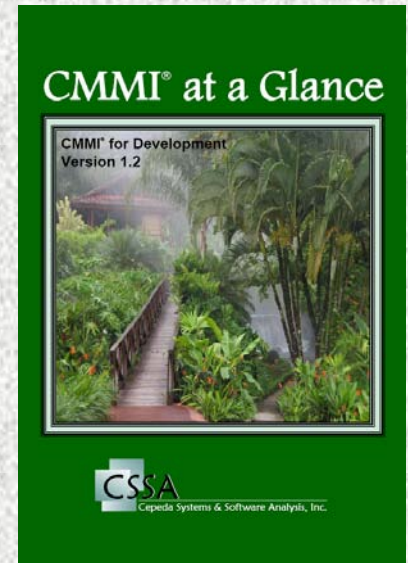
◆ Customer: Various Commercial Organizations

◆ Key Tasks

- Deliver CMMI training (executive, 1-day class, 3-day class)
- Perform Gap Analysis
- Develop process improvement implementation plans
- Provide ISO and CMMI coaching
- Provide CMMI coaching
- Perform SCAMPI A, B, and C appraisals

◆ Accomplishments

- Preferred vendor of CMMI services for Mentor Protégé programs through Morehouse College
- 100% CMMI coaching success rate – companies achieve their target CMMI ratings on schedule and under cost
- Characterization of a paradigm to integrate ISO, CMMI, and Lean/Six Sigma approaches into a framework that results in a single, comprehensive Quality Management System
- Effective, proven CMMI implementation methodology that leverages CSSA's CMMI toolkit
- Proven CMMI adoption paradigm
- Well-defined appraisal process supported by CMMI Appraisal tool
- CMMI quick reference guide



CSSA is a Woman-Owned, Certified 8(a) Company, in Huntsville, Alabama, providing Process Improvement and Systems/Software Engineering Services.

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